

# Digital Literacies

## Understanding Dispositions Toward Reading on the Internet

Julie Coiro

For the past five years, I've been exploring adolescents' attitudes and beliefs toward reading as they make the transition from reading printed texts to making sense of information in online reading environments. Some early findings from this work (Coiro, 2008) indicate a small but significant correlation between overall dispositions toward reading on the Internet and online reading comprehension ability.

Moreover, students' perceptions about the Internet's usefulness and potential to engage them in academic learning tasks are also related to their success in reading for information in online tasks. But what exactly are dispositions toward reading on the Internet and how can educators begin to measure and characterize these dispositions in ways that inform teaching? This column answers four questions to help educators to understand what to look for and how to foster more positive dispositions toward online reading in ways that address today's rigorous standards-based curricula.

### What Are Positive Dispositions Toward Reading on the Internet and Why Are They Important?

Positive dispositions—or attitudes, mindsets, and beliefs—are key dimensions of effective learning, particularly for students growing up in a digital information age (Guthrie, Wigfield, & Perencevich, 2004; Popham, 2009). When reading challenging material *offline*, a reader's affective states are important. For example, competent readers have a sense of feeling that they are in control of positive or negative outcomes; moreover, they have a sense of being in control of their learning and being able to self-regulate, knowing what strategies to use in different situations.

In addition, skilled offline readers are often characterized as curious, engaged learners who are confident in their ability to tackle difficult texts. Learners with positive dispositions often seek out challenging reading tasks, and each successful experience reinforces their initiation and use of the comprehension skills and strategies applied.

Similarly, as learners transition into *online* reading environments, their attitudes and self-efficacy relative to the Internet appear to be important factors that affect motivation and reading performance. Successful online readers are able to manage texts that often change from one day to the next with patience, persistence, and flexibility. In addition, they display creativity and confidence while using the Internet to comprehend diverse online texts.

One study (Tsai & Tsai, 2003) found that college students with higher Internet self-efficacy used computers more correctly and efficiently, solved problems independently rather than asking for help, and were more apt to criticize and question the information they encountered on the Internet.

In addition to research findings, emerging learning standards demand that online readers be personally productive, socially responsible, and able to collaborate with other members of a networked global community (Common Core State Standards Initiative, 2010; International Reading Association & National Council of Teachers of English, 2010). Likewise, 21st-century learners are expected to be adaptable, imaginative, self-directed, and emotionally resilient. Having a clearer picture of these expectations can inform the construction of valid assessments to document the development of these affective competencies over time.

## How Can We Measure Students' Dispositions Toward Reading on the Internet for School-Related Information Purposes?

Presently, at least three instruments have been developed to assess adolescents' attitudes and beliefs about reading on the Internet. The first, Dispositions of Online Reading Comprehension (DORC), includes 27 self-report statements focused on five dispositions: (1) reflective thinking, (2) critical stance, (3) flexibility, (4) persistence, and (5) collaboration (see O'Byrne & McVerry, 2009).

The complete survey can be found at Survey Monkey ([www.surveymonkey.com/s/dorc2010public](http://www.surveymonkey.com/s/dorc2010public)). Examples of DORC survey statements include: "I think about how I am reading when I visit websites" (reflective thinking); "Authors tell the truth when writing on the Internet" (critical stance); and "Using the Internet requires me to make quick changes in how I read" (flexibility).

A second instrument, Survey of Online Reading Attitudes and Behaviors, combines information about cognitive skills and affective online reading variables such as value, interest, anxiety, and efficacy for reading online to better clarify the factors that influence one's online reading experience. Samples of survey

items are available in Putnam's (2011) conference paper.

A third instrument that I developed, the Survey of Online Reading Dispositions (SORD), combines 12 survey items with 8 open-ended interview questions to provide a richer understanding of students' attitudes and beliefs about reading on the Internet for school-related tasks (see Coiro, 2009). Survey items ask students to rank statements in four categories that focus on their perception of the Internet as (1) valuable, (2) engaging, (3) easy to use, and (4) useful for learning.

Follow-up interview questions focus on how students approach and respond to online reading-for-research tasks as well as how they perceive their own ability to use the Internet. Early findings from each of these three surveys point to several important affective elements that, combined with cognitive reading abilities, create a more complete picture of an online reader's strengths and areas of need.

## What Do Measures of Online Reading Dispositions Reveal About Adolescents?

A preliminary study using the SORD survey with 109 seventh graders (see Coiro, 2009) revealed the following responses to survey statements:

- I believe the Internet makes it harder to get useful information. (87% agree and 23% disagree)
- I believe it's easy to get lost when I use the Internet for research. (62% agree and 38% disagree)
- I believe the Internet has made learning more interesting. (95% agree and 5% disagree)
- I would work harder if I could use the Internet more often in school. (68% agree and 32% disagree)
- I feel happy when I do research projects on the Internet. (89% agree and 11% disagree)

From these survey results, it would appear that many adolescents are willing to endure the challenges of reading online because they believe the Internet is valuable, useful, and engaging (Coiro, 2009).

**Figure Follow-Up Interview Questions Paired With Sample Responses Among Higher and Lower Performing Online Readers**

Interview Question	Lower Performing Online Readers	Higher Performing Online Readers
Do you enjoy the challenge of trying to find something using the Internet?	<p><b>Findings:</b> A tendency to view online inquiry as a source of frustration</p> <p><b>Sample response:</b> "It's annoying when you have to narrow your search down and sometimes you get upset because you don't know what to search for."</p>	<p><b>Findings:</b> A tendency to value the online inquiry experience</p> <p><b>Sample response:</b> "I do like the challenge, because it might take a while, but you can get really good research."</p>
How do you feel when can't find what you are looking for on the Internet?	<p><b>Findings:</b> A tendency to express feelings of anger and helplessness</p> <p><b>Sample response:</b> "I get mad and nervous because I won't be done in time and will get a bad grade, so I just stop and ask for help."</p>	<p><b>Findings:</b> A tendency to express feelings of pleasure alongside a fix-up strategy</p> <p><b>Sample response:</b> "I feel kind of happy and confused at the same time—trying to find something that's not right there, but then I try to make a search more general or specific, depending on what comes up."</p>

However, when each student's success with online inquiry tasks was examined in relation to how they approach and respond to Internet reading experiences, responses to interview questions revealed additional patterns.

The Figure illustrates examples of attitudinal tendencies among higher performing and lower performing online readers paired with a sample response from each type of individual. Overall, findings suggested that open-ended interview questions reveal important differences among adolescents that were not captured by survey items, as well as insights into how teachers might begin to intervene.

## Is It Possible to Foster More Positive Dispositions Toward Reading on the Internet?

Although work in this area is just beginning to emerge, teachers can support personal reading dispositions by embedding regular routines and opportunities for conversations about reader habits, attitudes, and personal reading goals into their curriculum.

Research on previous programs that combined affective and cognitive aspects of strategy instruction in order to promote both student engagement and *offline* reading comprehension achievement reported significant changes in students' attitudes and behaviors related to reading across the curriculum

(e.g., Guthrie & Davis, 2003). These results suggest that parallel efforts to blend affective and cognitive aspects of strategy instruction within *online* reading environments would likely yield similar findings.

Two important resources that can guide the instruction and documentation of positive dispositions toward online reading are (1) the *Standards for the 21st-Century Learner in Action* developed by the American Association of School Librarians Learning Standards Indicators and Assessment Task Force (see [www.ala.org/ala/mgrps/divs/aasl/aaslproftools/standardsinaction/standardsinaction.cfm](http://www.ala.org/ala/mgrps/divs/aasl/aaslproftools/standardsinaction/standardsinaction.cfm)); and (2) *A Continuum Model for Literacy With ICT Across the Curriculum* developed by the Manitoba Education, Citizenship, and Youth School Program Division in Manitoba, Canada (see [www.edu.gov.mb.ca/k12/tech/lict/index.html](http://www.edu.gov.mb.ca/k12/tech/lict/index.html)). Both documents contain grade-level benchmarks, action examples, and accompanying rubrics that reflect critical stages of development.

These guidelines can help educators conceptualize, teach, and assess 21st-century learner dispositions such as emotional resilience, persistence, social responsibility, and personal productivity. Rather than suggesting one set of guidelines for all situations, I would encourage teachers to build on and adapt these ideas in ways that suitably address their unique educational contexts. Work in this area has only begun, but I am eager to continue learning more about measuring and developing online reading dispositions in ways that better prepare students for the realities of reading on the Internet.

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